



# VACANCY BULLETIN

**Tshwane University  
of Technology**

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**SENIOR LECTURER  
DEPARTMENT OF COMPUTER SYSTEMS ENGINEERING  
FACULTY OF ICT  
POST LEVEL: 7  
SOSHANGUVE SOUTH CAMPUS  
Ref: 24/641b**

The Department of Computer Systems Engineering in the Faculty of ICT has a Senior Lecturer position available at the Soshanguve South campus.

**Key performance areas/Core functions:**

**1. Teaching and Instruction**

- Develop and deliver lectures and seminars in computer systems engineering, ensuring content is up-to-date with the latest developments in the field.
- Design and implement innovative teaching strategies to enhance student learning and engagement.
- Supervise and mentor students in their academic studies, projects, and in preparation for examinations.
- Assessment and evaluation of student work to maintain high academic standards.

**2. Curriculum Development**

- Develop and revise curriculum offerings to ensure they reflect the current state and advancements in computer systems engineering.
- Integrate practical and theoretical aspects of computer systems engineering into the curriculum to provide students with a comprehensive education.
- Collaborate with colleagues in continuous improvement of teaching resources and curriculum planning.

**3. Research**

- Engage in scholarly research activities leading to publication in peer-reviewed journals within the field of computer systems engineering.
- Secure funding for research projects through grant writing and collaborations with industry and other academic institutions.
- Supervise undergraduate, graduate, and doctoral research, providing expertise and guidance.
- Contribute to the advancement of the field through innovative, high-quality research.

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## **4. Academic Leadership and Service**

- Participate in the administration and governance of the department, such as attending faculty meetings, serving on committees, and providing input on departmental decisions.
- Mentor junior faculty members and contribute to their professional development. Engage with the broader academic and professional community through seminars, workshops, and conferences.

## **5. Industry Collaboration**

- Establish and maintain relationships with industry partners to facilitate cooperative research, internships, and placement opportunities for students.
- Stay updated with industry trends to ensure that the academic program maintains relevance and provides students with employable skills.
- Develop projects and case studies that reflect real-world challenges and require practical solutions.

## **6. Student Advisement and Support**

- Provide academic advising and career guidance to students within the department.
- Promote a supportive and inclusive educational environment that addresses the needs of a diverse student body.
- Implement student retention strategies and actively contribute to efforts aimed at increasing graduation rates.

## **Minimum Requirements**

### **1. Academic Qualifications:**

- A Doctoral degree (NQF level 10) in Computing with a specialization in Computer Systems Engineering, or in Engineering with a specialisation in Electronics.

### **2. Experience:**

- Three (3) years relevant lecturing experience in Computer Systems Engineering or related fields.

### **3. Knowledge and Skills:**

- Core Knowledge: Extensive knowledge of core subjects in Computer Systems Engineering.
- Programming Languages: Proficiency in programming languages relevant to embedded systems, such as C, C++, and Assembly.

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- Hardware Description Languages: Experience with HDLs (VHDL or Verilog) for FPGA and ASIC design.
- Artificial Intelligence: Skills in designing and implementing AI models and algorithms, particularly for embedded and real-time systems.
- Internet of Things (IoT): Knowledge of IoT technologies and protocols essential for automation and smart systems integration.
- Sensor Technology: Familiarity with sensor technologies, data acquisition, and signal processing.
- Simulation and Modeling: Proficiency in using simulation and modeling tools such as Python, MATLAB/Simulink, and LabVIEW.

#### **4. Professional Registration:**

- Registration with the Engineering Council of South Africa (ECSA) is highly desirable.
- Membership in relevant academic or professional bodies, such as IEEE, is strongly recommended.

**NB: PLEASE COMPLETE THE ATTACHED SCORESHEET AT THE BOTTOM OF THE ADVERT AND ATTACHED EVIDENCE AS REQUESTED.**

**Send CVs to** : [RecruitmentFolCT@tut.ac.za](mailto:RecruitmentFolCT@tut.ac.za)

**Enquiries** : Prof C Du (012) 382-9943

**Closing date** : 16 March 2025

**If we have not responded within a month of the closing date, you should regard your application as unsuccessful. Correspondences will be entered into only with short-listed candidates. The University reserves the right not to make an appointment. It is the intention of the university to promote representatively in respect of race, gender and disability through the filling of these posts. Preferences will be given to candidates from the designated groups.**

**Candidates are also required to complete the application form for employment. The application is available on the University's website, share point and the University's intranet.**

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**NB: PLEASE COMPLETE THE ATTACHED SCORESHEET BY PROVIDING DOCUMENTARY EVIDENCE FOR EACH RATING YOU GIVE YOURSELF. PLEASE EMBED/ATTACH THE EVIDENCE ON THE SCORESHEET.**

## ADDENDUM B GUIDELINE SCORE SHEET FOR PROMOTION TO SENIOR LECTURER

This score sheet can be used as a **guideline** to determine whether a person has the potential to be considered for a Senior Lecturer. A minimum of 50% in at least categories 3, 4 and 5 is required. A candidate with a total score of 50 points out of a possible 84 points can be considered for promotion to senior lecturer.

	CATEGORY	Weights	Maximum score	Score
<b>1</b>	<b>Qualifications</b>		<b>4</b>	
	A doctoral degree in the relevant field of study or a master's degree and chartership as approved by Senate	3	3	
	Formal teaching qualification	1	1	
<b>2</b>	<b>PROFESSIONAL</b>		<b>1</b>	
	Membership: Academic/research association/ETQA, professional board/council (1 point per membership to maximum of 3)	1 x 1	1	
<b>3</b>	<b>TEACHING, ASSESSMENT AND MANAGEMENT/LEADERSHIP</b>		<b>37</b>	
	Teaching (1 point per subject)	1 x 10	10	
	Curriculum development (1 point per subject)	1 x 4	4	
	External examiner or moderator for HEI (1 point per subject)	1 x 5	5	
	Marker/examiner/moderator for professional bodies/exam committees (1 point per exam)	1 x 4	4	
	Course /qualification coordinator (2 points per course/qualification)	2 x 2	4	

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	Subject head/coordinator (1 point per subject)	1 x 5	5	
	Section head (3 points) / HOD (5 points)	1 x 5	5	
<b>4</b>	<b>RESEARCH AND INNOVATION OUTPUTS</b>		<b>35</b>	
	Accredited journal articles as subsidised by DHET ( 3 points per article) co-author/ author	3 x 4	12	
	Non-accredited, peer reviewed journal articles (1 point per article)	1 x 3	3	
	Conference proceedings and/or presentations at conferences (1 point per paper to a maximum of 5)	1 x 5	5	
	Other (artistic and innovation outputs, patents, books/chapters etc.) (1 point per output)	1 x 5	5	
	Supervised/co-supervised master/doctorate (2 points per student)	2 x 4	8	
	Assessor/examiner: master/doctorate (2 points per assessment)	1 x 2	2	
<b>5</b>	<b>COMMUNITY ENGAGEMENT</b>		<b>5</b>	
	Participation in community projects (1 point per project) and/or industry involvement	1 x 5	5	
<b>6</b>	<b>GRANTS AND AWARDS</b>		<b>2</b>	
	Awards/prizes/grants (1 point per award/prize/grant)	1 x 2	2	
	Total		<b>84</b>	

## To qualify for promotion to Senior Lecturer:

1. A candidate should obtain at least 50 points to be considered for promotion and
2. Candidate should obtain at least 50% in sections 3, 4 and 5

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